



SAFETY DATA SHEET

Liqui Shield

Page: 1

Revision: 09/25/2017

Supersedes Revision: 07/24/2014

1. Product and Company Identification

Product Code: C320
Product Name: Liqui Shield
Company Name: CYCLO INDUSTRIES, INC.
902 SOUTH US HIGHWAY 1
JUPITER, FL 33477
Phone Number: (800)843-7813
Web site address: www.cyclo.com
Email address: ehs@cyclo.com
Emergency Contact: First Aid Emergency (800)752-7869
CHEMTREC (703) 527-3887 (800)424-9300
Information: First Aid Emergency (Outside U.S.) (312)906-6194
Intended Use: Lubricant

2. Hazards Identification

Flammable Aerosols, Category 1
Specific Target Organ Toxicity (repeated exposure), Category 2
Skin Corrosion/Irritation, Category 2
Toxic To Reproduction, Category 2
Specific Target Organ Toxicity (single exposure), Category 3
Serious Eye Damage/Eye Irritation, Category 2A
Aspiration Toxicity, Category 1



GHS Signal Word: Danger

GHS Hazard Phrases: H222: Extremely flammable aerosol.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.
H229: Pressurized container: May burst if heated.

GHS Precaution Phrases: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking.
P211: Do not spray on an open flame or any other ignition source.
P251: Pressurized container: Do not pierce or burn, even after use.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases: P370+378: In case of fire, use foam, alcohol foam, carbon dioxide, dry chemical or water fog for extinction.
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P363: Wash contaminated clothing before reuse.



SAFETY DATA SHEET

Liqui Shield

Page: 2

Revision: 09/25/2017

Supersedes Revision: 07/24/2014

GHS Storage and Disposal Phrases:

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

P370+378: In case of fire, use foam, alcohol foam, carbon dioxide, dry chemical or water fog for extinction.

P403+233: Store container tightly closed in well-ventilated place.

P410+412: Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
110-54-3	n-Hexane	20.0 -30.0 %
68476-86-8	Liquified petroleum gas, sweetened	20.0 -30.0 %
8052-41-3	Stoddard solvent	10.0 -20.0 %
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	1.0 -10.0 %
1314-13-2	Zinc oxide	0.1 -1.0 %
13463-67-7	Titanium dioxide	< 0.1 %

4. First Aid Measures

Emergency and First Aid Procedures:

If swallowed, do not induce vomiting. Give victim at least 3-4 glasses of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of skin contact, wash skin with soap and water. Take off contaminated clothing and wash before reuse. Call physician immediately if adverse reaction occurs.

5. Fire Fighting Measures

Flash Pt: >= -141.00 F (-96.1 C) Method Used: Pensky-Marten Closed Cup

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Alcohol foam, CO2, dry chemical, foam, water fog.

Fire Fighting Instructions: Wear a NIOSH approved self-contained breathing apparatus operated in pressure-demand or other positive pressure when fighting fires. Vapor may cause flash fire. Can form explosive mixtures at temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity or other sources of ignition; they may explode and cause injury or death.

Flammable Properties and Hazards: No data available.

Hazardous Combustion Products: No data available.



SAFETY DATA SHEET

Liqui Shield

Page: 3

Revision: 09/25/2017

Supersedes Revision: 07/24/2014

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:

Wear protective clothing to prevent skin and eye contact. Contain any liquid from leaking containers. Avoid all sources of ignition: heat, sparks and open flames. Do not puncture or incinerate container. Contents under pressure. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers.

7. Handling and Storage

Precautions To Be Taken in Handling:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces - No smoking. Do not spray on an open flame or any other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Keep out of the reach of children.

Precautions To Be Taken in Storing:

Store locked up. Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
110-54-3	n-Hexane	PEL: 500 ppm	TLV: 50 ppm	No data.
68476-86-8	Liquified petroleum gas, sweetened	No data.	No data.	No data.
8052-41-3	Stoddard solvent	PEL: 500 ppm	TLV: 100 ppm	No data.
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	No data.	No data.	No data.
1314-13-2	Zinc oxide	PEL: 5 (fume); 15 (dust) mg/m3	TLV: 2 mg/m3 (R) STEL: 10 mg/m3 (R)	No data.
13463-67-7	Titanium dioxide	PEL: 15 (dust) mg/m3	TLV: 10 mg/m3	No data.

Respiratory Equipment (Specify Type):

Use in a well ventilated area. Local exhaust ventilation as necessary to control any air contaminants within their exposure limits. NIOSH/MSHA approved respirator when exposure is expected to exceed applicable limits.

Eye Protection:

Chemical goggles. Face shield if splashing hazard exists.

Protective Gloves:

Gloves resistant to petroleum distillates should be worn.

Other Protective Clothing:

Protective clothing as necessary to prevent skin contact.

Engineering Controls (Ventilation etc.):

No data available.



9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Amber liquid. Solvent odor.
pH:	NE
Melting Point:	NE
Boiling Point:	-23.00 F (-30.6 C) - 387.00 F (197.2 C)
Flash Pt:	>= -141.00 F (-96.1 C) Method Used: Pensky-Marten Closed Cup
Evaporation Rate:	No data.
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: No data. UEL: No data.
Vapor Pressure (vs. Air or mm Hg):	NE
Vapor Density (vs. Air = 1):	>=Air
Specific Gravity (Water = 1):	.69
Solubility in Water:	Negligible
Octanol/Water Partition Coefficient:	No data.
Percent Volatile:	68.8 % by weight.
Autoignition Pt:	No data.
Decomposition Temperature:	No data.
Viscosity:	water thin

10. Stability and Reactivity

Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Keep away from heat, sparks & flame.
Incompatibility - Materials To Avoid:	Strong oxidizers.
Hazardous Decomposition or Byproducts:	Smoke, fumes, oxides of carbon, nitrogen, silica, and various metal oxides are possible decomposition products. Carbon monoxide, carbon dioxide, smoke, fumes.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.



11. Toxicological Information

Toxicological Information:

CAS# 64742-52-5:

Mutagenicity: Mutation test: Mutation in microorganisms., 10.00 UL/PLAT, Bacteria - Salmonella typhimurium,.

Results:

Behavioral: Coma.

Biochemical: Metabolism (intermediary): Other.

- Cell Biology and Toxicology., Princeton Scientific Pub., Inc., 301 N. Harrison St., CN 5279, Princeton, NJ 08540, Vol/p/yr: 2,63, 1986

Acute toxicity, LD (Lethal dose), Oral, Rat, > 5.000 GM/KG.

Results:

Tumorigenic: Neoplastic by RTECS criteria.

Lungs, Thorax, or Respiration: Tumors.

Tumorigenic: Tumors at site of application.

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,133, 1990

Acute toxicity, LD (Lethal dose), Skin, Species: Rabbit, > 5.000 GM/KG.

Results:

Behavioral: Coma.

Biochemical: Metabolism (intermediary): Other.

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,133, 1990

Tumorigenic Effects: TDLo, Skin, Mouse, 480.0 GM/KG, 80 W.

Results:

Tumorigenic: Neoplastic by RTECS criteria.

Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site of application.

- United States Environmental Protection Agency, Office of Pesticides and Toxic Substances., U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances, 401 M St., SW, Washington, DC 20460, Vol/p/yr: 8EHQ-0887-,

Tumorigenic Effects: TDLo, Skin, Mouse, 402.0 GM/KG, 78 W.

Results:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site of application.

- British Journal of Cancer., Macmillan Press Ltd, Houndmills, Basingstoke, Hampshire RG21 2XS UK, Vol/p/yr: 48,429, 1983

Tumorigenic Effects: TDLo, Skin, Mouse, 398.0 GM/KG, 22 W.

Results:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site of application.

- British Journal of Cancer., Macmillan Press Ltd, Houndmills, Basingstoke, Hampshire RG21 2XS UK, Vol/p/yr: 48,429, 1983

Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, Severe.

Results:



SAFETY DATA SHEET

Liqui Shield

Page: 6

Revision: 09/25/2017

Supersedes Revision: 07/24/2014

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Skin and Appendages: Other: Tumors.

Tumorigenic: Tumors at site of application.

- Acute Toxicity Data. Journal of the American College of Toxicology, Part B., Mary Ann Liebert, Inc., 1651 Third Ave., New York, NY 10128, Vol/p/yr: 1,133, 1990

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
110-54-3	n-Hexane	n.a.	n.a.	n.a.	n.a.
68476-86-8	Liquified petroleum gas, sweetened	n.a.	n.a.	n.a.	n.a.
8052-41-3	Stoddard solvent	n.a.	n.a.	n.a.	n.a.
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	n.a.	n.a.	n.a.	n.a.
1314-13-2	Zinc oxide	n.a.	n.a.	n.a.	n.a.
13463-67-7	Titanium dioxide	n.a.	2B	A4	n.a.

12. Ecological Information

General Ecological Information: Do not allow to enter sanitary drains, sewer or surface or subsurface waters. Keep out of lakes, ponds or streams.

13. Disposal Considerations

Waste Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulation.

Waste Disposal Method: DISP

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Aerosols, 2.1, Ltd. Qty.
DOT Hazard Class: 2.1 FLAMMABLE GAS
UN/NA Number: UN1950

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Aerosols, 2.1, Ltd. Qty.
UN Number: 1950
Hazard Class: 2.1 - FLAMMABLE GAS

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Aerosols, 2.1, Ltd. Qty.	Packing Group:	
UN Number: 1950	IMDG Classification:	2.1
Hazard Class: 2.1 - FLAMMABLE GAS	IMDG MFAG Number:	
IMDG EMS Page:	Marine Pollutant:	No

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Aerosols, flammable, 2.1, Ltd. Qty.	IATA Classification:	2.1
UN Number: 1950		
Hazard Class: 2.1 - FLAMMABLE GAS		



15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
110-54-3	n-Hexane	No	Yes 5000 LB	Yes
68476-86-8	Liquified petroleum gas, sweetened	No	No	No
8052-41-3	Stoddard solvent	No	No	No
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	No	No	No
1314-13-2	Zinc oxide	No	No	Yes-Cat. N982
13463-67-7	Titanium dioxide	No	No	No

CAS # Hazardous Components (Chemical Name)

Other US EPA or State Lists

110-54-3	n-Hexane	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NC TAP: Yes; NJ EHS: Yes - 1340; NY Part 597: Yes; PA HSL: Yes - 1; SC TAP: Yes; WI Air: Yes
68476-86-8	Liquified petroleum gas, sweetened	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
8052-41-3	Stoddard solvent	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: Yes
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
1314-13-2	Zinc oxide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Yes - Cat., Title 8; MA Oil/HazMat: Yes - Cat.; MI CMR, Part 5: Yes - Cat.; NC TAP: No; NJ EHS: Yes - Cat.; NY Part 597: No; PA HSL: Yes - E; SC TAP: No; WI Air: No
13463-67-7	Titanium dioxide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: Yes: Canc.; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: No

CAS # Hazardous Components (Chemical Name)

International Regulatory Lists

110-54-3	n-Hexane	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
68476-86-8	Liquified petroleum gas, sweetened	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
8052-41-3	Stoddard solvent	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
64742-52-5	Mineral oil, petroleum distillates, hydrotreated heavy naphthenic	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
1314-13-2	Zinc oxide	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
13463-67-7	Titanium dioxide	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes



SAFETY DATA SHEET

Liqui Shield

Page: 8

Revision: 09/25/2017

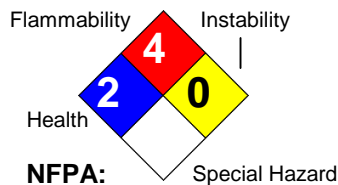
Supersedes Revision: 07/24/2014

Yes

16. Other Information

Revision Date: 09/25/2017

Hazard Rating System:



Additional Information About NOT FOR SALE IN CA.

This Product:

Company Policy or

Disclaimer:

Cyclo Industries, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Cyclo Industries, Inc. makes no representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Cyclo Industries, Inc. will not be responsible for damages resulting from use of or reliance upon this information.